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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,047	02/05/2002	Ernest C. Chen	PD-201151	8312

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THE DIRECTV GROUP INC
PATENT DOCKET ADMINISTRATION RE/R11/A109
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EXAMINER	
TORRES, JUAN A	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,047	CHEN ET AL.	
	Examiner	Art Unit	
	Juan A. Torres	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings were received on 07/18/2005. These drawings are accepted by the Examiner.

Specification

The modifications to the specification were received on 07/18/2005. These modifications are accepted by the Examiner.

Claim Rejections - 35 USC § 102

In view of the amendment filed on 07/18/2005, the Examiner withdraws the 35 USC § 102 rejections based on Ishio to claims 1-37 of the previous Office Action.

Claim Rejections - 35 USC § 103

In view of the amendment filed on 07/18/2005, the Examiner withdraws the 35 USC § 103 rejections based on Arslan in view of Ishio to claims 1-37 of the previous Office Action.

Response to Arguments

Applicant's arguments filed on 07/18/2005 have been fully considered but they are not persuasive.

Regarding double patenting:

The Applicant contends, "For example, claim 1 of application 10/068,039 recites "a digital-to-analog encoder" having features not recited in claim 1 of the instant application. Also, claim 16 of the instant application recites a second demodulator and

second decoder that are not recited in claim 13 of application serial number 10/068,039."

The Examiner disagrees and asserts, that as indicated in the previous Office Action. Claims 1, 2, 5, 6, 7, 10, 12, 13, 14, 15, 23, 24, 27, 28, 29, 32, 34, 35, 36 and 37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 22, 23, 24, 25, 26, 27, 28, 29 and 30 respectively of copending Application No. 10/068,039. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims in the present application are broader in scope. For these reasons and the reason indicated in the previous Office Action the double patenting rejections are maintained.

The Applicant contends, "Anderson discloses a single circuit that is capable of demodulating signals in either the HART (coherent) or ISII (non-coherent) protocols. It does not disclose or suggest the demodulation of a multi-layer modulation signal with non-coherently modulated layers. Further, if one of ordinary skill in the art were to want to modify the Ishio system to allow compatibility with other systems (the Office Action's proffered motivation for modifying Ishio as described in Anderson), Anderson teaches that he/she would do so with a circuit that would operate with either one signal or the other, not by combining non-coherent layers.".

The Examiner disagrees and asserts, that the brief does not contain, for each rejection under 35 U.S.C. 103, an argument which specifies the errors in the rejection and, if appropriate, the specific limitations in the rejected claims which are not described

in the prior art relied upon in the rejection, and an explanation how such limitations render the claimed subject matter unobvious over the prior art. If the rejection is based upon a combination of references, the argument must explain why the references, taken as a whole do not suggest the claimed subject matter, and shall include, as may be appropriate, an explanation of why features disclosed in one reference may not be properly combined with features disclosed in another reference. A general argument that all the limitations are not described in a single reference does not satisfy the requirements of 37 CFR 1.192(c)(8)(iv). If a single reference contains all the limitations of the claim, the rejection will be under 35 USC 102. The coherent and non-coherent of a signal is independent of the use of layered modulation. Ishio present a case of coherent signals for simplification, but the coherent of the signals is not important in his patent, in fact he only mention that one time. Ishio never discloses that his invention is not applicable to non-coherent signals. For these reasons and the reason indicated in the previous Office Action the rejections are maintained.

Claim Rejections - 35 USC § 103

Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio (US 4039961) and further in view of Anderson (US 6297691).

As per claims 1 and 23 Ishio discloses receiving a layered signal and producing a layered in-phase signal and a layered quadrature signal (figure 5 block 16-17 column 4 lines 3-52. Ishio uses a VCO operating as a turner. This component is also disclosed by Anderson in figure 4 block 54 using a digital NCO); digitizing the layered in-phase signal and the layered quadrature signal (figure 5 block 16 column 4 lines 3-52, the

detection circuit 16 will detect the signal that is a digital signal and will make a digital decision of the signal so it is digitalizing the received signal. As the title of the Ishio patent indicates the demodulator is for combined digital amplitude and phase keyed modulation signals. This element is also disclosed by Anderson in figure 3 block 14); a processor for decoding the layered in-phase signal and the layered quadrature signal to produce a signal layer in-phase signal and a single layer quadrature signal to produce one or more discrete layer signals (figure 5 blocks 16 and 18 column 4 lines 3-52; this element is also disclosed by Anderson in figure 3 block 20). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 1 and 23.

As per claims 2 and 24 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that the processor comprises a logic circuit (figure 5 blocks 16 column 4 line 7). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 2 and 24.

As per claims 3 and 26 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses one or more decoders, each receiving and decoding one of the one or more discrete layer signals (figure 5 blocks 16 column 4 line 7). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 3 and 24.

As per claims 4 and 25 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses the processor performs frequency acquisition on the layered quadrature signal (figure 5 blocks 16 column 4 line 17-41). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver

disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 4 and 25.

As per claims 5 and 27 Ishio and Anderson disclose claims 1 and 23. Anderson also discloses that the processor comprises match filtering the in-phase signal and the (figure 5 blocks 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 5 and 27.

As per claims 6 and 28 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that the processor demodulates and decodes an upper layer signal from the layered in-phase signal and the layered quadrature signal to produce an upper one of the one or more discrete layer signals (figure 5 block 27 and 28 column 4 line 52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence

signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 6 and 28.

As per claims 7 and 29 Ishio and Anderson disclose claims 6 and 23. Ishio also discloses that the processor produces an ideal upper layer signal including an ideal in-phase upper layer signal and an ideal quadrature upper layer signal from the decoded upper layer signal and subtracts the ideal in-phase upper layer signal and the ideal quadrature upper layer signal from the layered in-phase signal and the layered quadrature signal, respectively, to produce a lower layer in-phase signal and a lower layer quadrature signal of a lower one of the one or more discrete layer signals (figure 5 block 25 column 10 lines 42-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 7 and 29.

As per claims 8 and 30 Ishio and Anderson disclose claims 7 and 29. Ishio also discloses that the processor demodulates and decodes an upper layer signal from the

layered in-phase signal and the layered quadrature signal to produce an upper one of the one or more discrete layer signals (figure 5 block 19 and 20 column 4 lines 14-26). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 8 and 30.

As per claims 9 and 31 Ishio and Anderson disclose claims 7 and 29. Anderson also discloses that the processor comprises match filtering the in-phase signal and the quadrature signal (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 9 and 31.

As per claims 10 and 32 Ishio and Anderson disclose claims 7 and 29. Ishio also discloses that layered in-phase signal and the layered quadrature signal are delayed to synchronize the subtraction (figure 5 delay line 23 column 4 line 25). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 10 and 32.

As per claims 11 and 33 Ishio and Anderson disclose claims 10 and 32. Ishio also discloses that delaying the layered in-phase signal and the layered quadrature signal are delayed by correlating to the ideal in-phase upper layer signal and the ideal quadrature upper layer signal (figure 5 delay line 23 column 4 line 25). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it

would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 11 and 33.

As per claims 12 and 34 Ishio and Anderson disclose claims 7 and 29. Ishio also discloses producing the ideal upper layer signal comprises signal processing the ideal in-phase upper layer signal and the ideal quadrature upper layer signal (figure 5 block 21 column 4 line 18). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 12 and 34.

As per claims 13 and 35 Ishio and Anderson disclose claims 12 and 34. Anderson also discloses that the signal processing the ideal in-phase signal and the ideal quadrature signal comprises finite impulse response matched filtering the ideal in-phase signal and the ideal quadrature (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the

decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 13 and 35.

As per claims 14 and 36 Ishio and Anderson disclose claims 12 and 34. Ishio also discloses that the signal processing the ideal in-phase upper layer signal and the ideal quadrature upper layer signal comprises applying a signal map to the ideal in-phase upper layer signal and the ideal quadrature upper layer signal, the signal map accounting for transmission distortions of the layered signal (figure 5 block 21 column 4 line 18). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 14 and 36.

As per claims 15 and 37 Ishio and Anderson disclose claims 12 and 34. Ishio also discloses that the signal processing the ideal in-phase upper layer signal and the ideal quadrature upper layer signal comprises amplitude and phase matching the ideal in-phase upper layer signal and the ideal quadrature upper layer signal with the layered in-phase signal and the layered quadrature signal, respectively (figure 5 block 21 column 4 line 18). Ishio and Anderson are analogous art because they are from the

same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 15 and 37.

As per claim 16 Ishio discloses a processor for decoding a layered signal into separate signal layers, comprising a first demodulator and first decoder for decoding an upper layer signal from the layered signal and providing the decoded upper layer signal at a first output (figure 5 block 16 column 4 lines 5-16); an encoder for generating an ideal upper layer signal from the decoded upper layer signal (figure 5 block 18 column 4 line 12); a signal processor for modifying the ideal upper layer signal to characterize transmission and processing effects (figure 5 block 21 column 4 line 18); a subtractor for subtracting the modified ideal upper layer signal from the layered signal to produce a lower layer signal (figure 5 block 25 column 10 lines 42-52); and a second demodulator and second decoder for decoding the lower layer signal and providing the decoded lower layer signal at a second output (figure 5 block 26 column 10 lines 47-52). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been

obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 16.

As per claim 17 Ishio and Anderson disclose claim 16. Ishio also discloses a delay function correlated to an output of the signal processor to appropriately delay the layered signal to synchronize amplitude and phase matching of the modified ideal upper layer signal and the layered signal (figure 5 delay line 23 column 4 line 25). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 17.

As per claim 18 Ishio and Anderson disclose claim 16. Ishio also discloses a delay function correlated to an output of the signal processor to appropriately delay the layered signal to synchronize subtraction of the modified ideal upper layer signal and the layered signal (figure 5 delay line 23 column 4 line 25). Ishio and Anderson are

analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 18.

As per claim 19 Ishio and Anderson disclose claim 16. Anderson also discloses that the signal processor performs finite impulse response matched filtering on the ideal layer signal (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 19.

As per claim 20 Ishio and Anderson disclose claim 16. Anderson also discloses that the signal processor performs finite impulse response matched filtering on the signal (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art

because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 20.

As per claim 21 Ishio and Anderson disclose claim 16. Ishio also discloses that the signal processor applies a signal map to the ideal upper layer signal (figure 5 block 18 column 4 line 12). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 18.

As per claim 22 Ishio and Anderson disclose claim 16. Ishio also discloses that the signal processor amplitude and phase matches the ideal upper layer signal with the layered signal (figure 5 block 18 column 4 line 12). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the

receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 18.

Double Patenting

Claims 1, 2, 5, 6, 7, 10, 12, 13, 14, 15, 23, 24, 27, 28, 29, 32, 34, 35, 36 and 37 of this application conflict with claims 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 22, 23, 26, 27, 28, 29 and 30 respectively of Application No. 10/068,039. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5, 6, 7, 10, 12, 13, 14, 15, 23, 24, 27, 28, 29, 32, 34, 35, 36 and 37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 22, 23, 24, 25, 26, 27, 28, 29 and 30 respectively of copending Application No. 10/068,039. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims in the present application are broader in scope.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres, Ph. D.
08-16-2005

KEVIN BURD
PRIMARY EXAMINER